



安徽铜峰电子股份有限公司
Anhui Tongfeng Electronics Co., Ltd

产品规格书

Product Specification

产品名称：复合铜箔集流体用聚丙烯薄膜

Produce Name: Composite collector with polypropylene film

版本/ Revision: A/0

版本 Revision	日期 Date	版本更新记录 Change contents	核准 Approved
A/0	2023-09-25	基本功能	束庆忠
A/0	2025-08-06	外单样式更改	束庆忠

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复合集流体用聚丙烯薄膜

Composite collector with polypropylene film

1、基础信息 Basic information

特点 Characteristic	采用高纯度聚丙烯树脂，经平膜法双向拉伸而成。具有厚薄均匀性好，拉伸强度大，机械强度高，延展性好，耐酸耐热性能优异的特点，是极具潜力的新型锂电集流体材料，具有高安全性、高比能、长寿命、低成本等性能优势，主要用于锂离子电池，将在动力电池、消费电池等领域逐渐替代传统的电解铜箔、铝箔。 The product is made of high-purity resin and biaxially stretched through the flat film method. It has the characteristics of good thickness uniformity, high tensile strength, high mechanical strength, good ductility, and excellent acid and heat resistance. It is a highly potential new type of lithium current collector material, with high safety, high specific energy, long lifetime, low cost and other performance advantages. It is mainly used for lithium-ion batteries and will gradually replace traditional electrolytic copper foil and aluminum foil in power batteries, consumer batteries, and other fields.				
应用范围 Application	主要用于复合铜箔集流体用聚丙烯薄膜。 It is mainly used for composite collector with polypropylene film.				
薄膜尺寸规格 Size specification for MPP Film	规格 Size		2.9μm	4.5μm	注 :特殊规格另行协商 Note: Special specifications will be discussed separately
	厚度 Thickness	重量法 WMV	2.9μm	4.5μm	
		机械法 MMV	3.1μm	4.7μm	
	平均厚度偏差（WMV） Average Thickness Deviation(WMV)			±2%	
	成品膜卷宽度（mm） Width of finished film roll			1350±2、1550±2 或根据客户需求进行分切 1350±2、1550±2 or customized cutting according to client specifications.	
厚度表示方法 Representation method of thickness	本公司 MPP05 膜厚度标称值为重量法厚度（WMV） Our nominal value for MPP05 film thickness refers to WMV. 示例：MPP05-4.5 表示 WMV 厚度为 4.5μm； Examples：MPP05-4.5represents film thickness in WMV is 4.5μm.				

2、技术特征（典型值） Technical features (typical value)

项目 Item		单位 Unit	典型数值 Typical Values		
			<4.5μm		≥4.5μm
			普通款	高强款	高强款
密度 Density		g/cm ³	0.905±0.005	0.905±0.005	0.905±0.005
熔点 Melting Point		°C	172±2	172±2	172±2
拉伸强度 Tensile Strength	纵向 MD	MPa	200	250	250
	横向 TD	MPa	280	320	320
断裂伸长率 Elongation at break	纵向 TM	%	100	100	100
	横向 TD	%	60	60	60
热收缩率 Thermal Shrinkage	纵向 MD	%	4.5	5.0	4.5
	横向 TD	%	1.0	1.0	1.0
浸润张力 Wetting Tension		mN/m	40	40	40
表面粗糙度 Surface Roughness		μm	0.06±0.02	0.06±0.02	0.08±0.02

◆ 项目测试标准依据 GB/T 13542.2-2021 The project testing standards are established in accordance with GB/T 13542.2-2021.

◆ 以上参数非技术协议，仅供参考 The above parameters are non-technical agreement, for reference only.

3、包装与储存 Packing and Storage

包装 Packing	每一卷薄膜在分切和检验之后都会用聚丙烯塑料袋进行包裹，以便隔离粉尘和颗粒。膜卷两侧使用泡沫垫片、支撑夹板、堵头进行固定，防止运输过程中膜卷受到挤压。并用木箱或纸箱包装、打包，托盘堆垛。 Each roll of film should be wrapped with polypropylene plastic bags to protect against dust and foreign particles after slitting and inspection. The film roll is also fixed with foam gasket, support plate and plug on both sides of the roll and packed with carton box to prevent rolls from being squeezed in the process of transportation.
标签 Labelling	每一卷膜在包装箱里面和包装箱上都有一张有关膜卷基本信息的标签。 Each roll is equipped with two labels, which are placed on the outer surface of the carton packaging and inside the packaging.
储存 Storage	膜卷在储存过程中应该避免任何形式的冲击；储存环境应该保持干燥，环境温度不应高于 40°C；并且膜卷不宜储存太长时间，否则会影响薄膜的使用性能；建议储存时间不超过 1 年，如储存时间超过 1 年，应该对膜卷的各项性能重新进行评估。 All kinds of vibration and shocks should be avoided to the film rolls in the process of storage and transportation. The rolls should be stored not more than one year in a dry place. Temperature exceeding 40°C. The roll should not be

	storage for long time. Otherwise, it will affect the performance of the film . We are suggested storage time should not exceed one year. If the film is storage for more than one year , the film properties should be evaluated again.	
	MPP05	代表薄膜的类型 The type of the rough film, where
	B	代表原料型号 Representative Material Model Number
	3.8um	代表标称厚度 (wmv) Nominal thickness of the film (wmv)
	1350mm	代表膜卷的宽度 The width of film roll
	250424096610280	代表膜卷批号 complete customer roll number
	-250424	代表生产日期是 2025 年 4 月 24 日 the date of production is 2025-04-24
	-0966	代表大膜卷编号 Production lot number
	-102	代表小膜卷分切的号位 Roll position (i.e. position in TD direction in a slitting set)
	-8	代表生产线是第八条生产线 The No.8 production line
	处理面	内代表电晕处理面在内侧 The corona side is inside
	接头	0 代表无接头 The film has no splice
	优等品	代表该膜卷的等级 The class of the film roll (F/Q)
	15500m	代表膜卷的长度 The length of film roll (m)
	2025-04-24	代表生产该膜卷的日期 Product date-year/month/day
	152mm	代表纸卷芯内径为 152mm The internal diameter of the core
	73.000kg	代表该膜卷的重量(kg)Net weight of the film in the roll (kg)